

What is claimed is:

1. A light permeable fluorescent cover to be attached on a light emitting diode which emits a first light having a first peak in a first wavelength range, said cover comprising a fluorescent material for producing second and third lights upon excitation by said first light,

said second light having a second peak in a second wavelength range away from said first peak, and

said third light having a third peak in a third wavelength range away from said first and second peaks,

wherein said first, second and third lights are mixed into a synthesized new light.

2. A light permeable fluorescent cover of claim 1, wherein said first, second and third lights are in no optically complementary color relation to each other.

3. A light permeable fluorescent cover of claim 1, wherein said first, second and third lights have primary three optical colors.

4. A light permeable fluorescent cover of claim 1, wherein said first light is blue, and said first wavelength is a blue wavelength range,

said second and third lights are respectively green and red, and said second and third wavelengths are respectively green and red wavelength ranges.

5. A light permeable fluorescent cover according to claim 4, wherein said fluorescent material includes fluorescent lanthanoid aluminates activated by manganese to produce said green and red lights.

6. A light permeable fluorescent cover according to claim 4 or 5, wherein said

fluorescent material is shown by at least one selected from chemical formulae of:  
 $\text{LaAl}_{11}\text{O}_{18}:\text{Mn}^{2+}$ ,  $\text{La}_2\text{O}_3\text{Al}_2\text{O}_5:\text{Mn}^{2+}$ ,  $\text{La}_{1-x}\text{Al}_{11(2/3)+x}\text{O}_{19}:\text{Mn}^{2+}$  ( $0.1 \leq x \leq 0.99$ ),  $(\text{La}, \text{Ce})\text{Al}_{11}\text{O}_{19}:\text{Mn}^{2+}$ , and  $(\text{La}, \text{Ce})\text{MgAl}_{11}\text{O}_{19}:\text{Mn}^{2+}$ .

7. A light permeable fluorescent cover according to any one of claims 4 to 6, wherein said first peak is from 420 nm to 480 nm; said second peak is from 490 nm to 550 nm; and said third peak is from 660 nm to 720 nm.

8. A light permeable fluorescent cover of claim 1, wherein said cover comprises a base material formed of one or more resins selected from the group consisting of silicone, polyester, acrylic acid, epoxy, urethane, nylon, polyamide, polyimide, vinyl chloride, polycarbonate, polyethylene, Teflon, polystyrene, polypropylene and polyolefin.

9. A light permeable fluorescent cover of claim 1, wherein said cover has a varied thickness along emission intensity distribution of said light emitting diode.

10. A light permeable fluorescent cover of claim 1, wherein said cover is attached on and in close and clinging contact to said light emitting diode.

11. A light permeable fluorescent cover of claim 1, wherein said cover is thermally shrinkable.

12. A light permeable fluorescent cover of claim 1, wherein a light permeable adhesive agent adheres said cover to said light emitting diode.

13. A light permeable fluorescent cover of claim 1, wherein said cover is formed on a surface of the light emitting diode by spraying plastic melt to a surface of said light emitting diode or dipping said light emitting diode in plastic melt, said

plastic melt contains fluorescent particles.

14. A light permeable fluorescent cover of claim 1, wherein said fluorescent material includes manganese for adjusting component ratio of said red and green lights by the manganic concentration.

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